

**REMARKS**

The Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-3, 5-7, 9-15, 17, and 19-24 are pending, of which claims 3, 6, 7, 17, 19, and 20 are amended. Claims 1, 3, 9, 11, and 14 are independent. Claims 4, 8, 16, and 18 were previously canceled without prejudice to or disclaimer of the subject matter set forth therein, and claims 1, 2, 9-15, and 21-24 were previously withdrawn.

The Examiner is respectfully requested to reconsider the rejections in view of the remarks set forth herein.

**Rejections Under 35 U.S.C. §103(a)**

Claims 3, 5-7, 17, and 19-24 stand rejected under §103(a) as being unpatentable over Akai (U.S. 6,314,678) in view of Harrison et al. (WO 00/63400).

This rejection is respectfully traversed.

**Arguments Regarding Patentability of Independent Claim 3**

While not conceding the appropriateness of the examiner's rejection, but merely to advance the prosecution of the present application, independent claim 3 has been amended to recite a combination of elements, including:

“a plurality of microporous bodies, each of the microporous bodies having a surface on which a single plant seed is germinated and grown into a plant body, each of the single plant seeds having one of a cylindrical shape, a pillar shape, a barrel shape having a bottom,

a pillar shape having a honeycomb cross section, or a barrel shape having a polygonal cross section; and

a holding means for removably holding the plurality of microporous bodies,

wherein each of the single plant seeds is germinated and grown on a respective one of the microporous bodies by absorbing from the surface of the microporous body an aqueous nutrition which is retained in communicating pores in the microporous body from the surface of the microporous body,

wherein the each of plurality of microporous bodies held by the holding means makes not contact with any other of the plurality of microporous bodies, and

wherein the plant grown in each of the plurality of microporous bodies is transformed by being immersed in a carrier solution approximately at the same time according to an *in planta* method.”

The Applicants respectfully submit that the combination of elements as set forth in independent claim 3 is not disclosed or made obvious by the prior art of record, including Akai and Harrison et al.

In contrast to the present invention, the Examiner states that Akai teaches an apparatus wherein the holding means may be removed and that Fig.3 teaches a plurality of microporous bodies holding at least two plants. Moreover, he states that Fig.8 shows a plural rod-like projection (51) that is supported on a plate (50), wherein "the rod-like projections

may be removed such as when the rod-like projections are fired separately and placed on the plate later (col.8, lines 5-12)."

However, the plant to be cultivated in the apparatus of Akai Fig.3 is supported by two microporous bodies. In such an apparatus, the plant seed cannot be independently germinated and grown on a surface of the microporous body and, thereby, only plant bodies exactly uniformized in their growth stage cannot be subjected to the transformation experiment for an exact experiment (see, page 11, lines 9-11).

Furthermore, except for the description on page 6, forth column, in the apparatus of Akai, the plants are cultivated between two cultivating apparatuses, i.e. are sandwiched, to support them.

Moreover, although the Examiner states that the rod-like projections in Fig.8 of Akai may be removed, there is merely disclosed that:

"The rod-like projections 51 in accordance with the present embodiment may be integrally molded on the plate-like base 50 and then fired, or the rod-like projections 51 fired separately may be installed on the fired plate-like base 50 later" (col.8, lines 8-12)."

This phrase "may be installed" entirely does not mean "may be removed."

And, there is no description or suggestion that the rod-like projections may be removed.

In view of such facts, even when Akai discloses a system of growing plants comprising of a plurality of microporous bodies, a constitution of the present invention that each plant seed is independently germinated and grown and a plurality of microporous

bodies are removably held by a holding means is not suggested therein. Therefore, the present invention is not suggested over Akai in view of Harrison et al.

The Examiner's logic would be improper hindsight.

Accordingly, the Applicants respectfully submit that the combination of elements as set forth in independent claim 3 is not disclosed or made obvious by the prior art of record, including Akai and Harrison et al.

Therefore, independent claim 3 is in condition for allowance.

All dependent claims are in condition for allowance due to their dependency from allowable independent claim 3, or due to the additional novel features set forth therein.

All pending claims are now in condition for allowance.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) are respectfully requested.

**CONCLUSION**

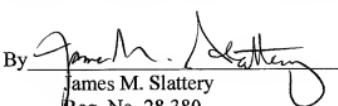
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 208-4030 (direct line).

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

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Respectfully submitted,  
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